



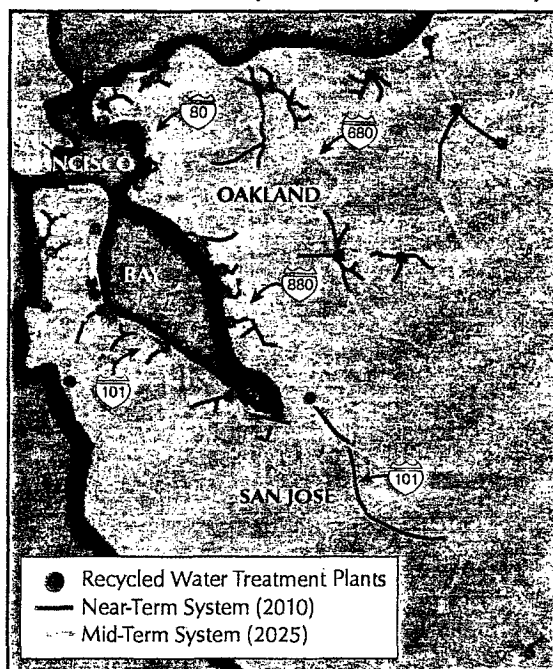
San Francisco Bay Area REGIONAL WATER RECYCLING PROGRAM

Why Is Recycling Needed?

Securing a reliable, drought-proof water supply has been identified by business associations as an important cornerstone of the long-term economic vitality of the Bay Area and California.

Bay Area counties currently experience water shortages during drought conditions such as those that occurred in the late 1970's, late 1980's and early 1990's. As the Bay Area economy continues to grow, the frequency and severity of water shortages is expected to increase. By 2025, Bay Area water agencies predict that shortages will exceed 300,000 acre-feet per year during drought conditions.

Regional Plan Defines Cost-Effective Corridors for Recycled Water Delivery



What Is BARWRP?

The Bay Area Regional Water Recycling Program (BARWRP) is a partnership of federal, state and local agencies dedicated to building consensus regarding the feasible use of recycled water in the San Francisco Bay Area.

The program's current focus is the preparation of a long-range Regional Water Recycling Master Plan for five counties of the Bay Area—San Francisco, San Mateo, Santa Clara, Alameda and Contra Costa. These counties are home to about one-sixth of California's population and comprise the heart of the state's thriving high tech industry.

What Are the Master Plan Recommendations?

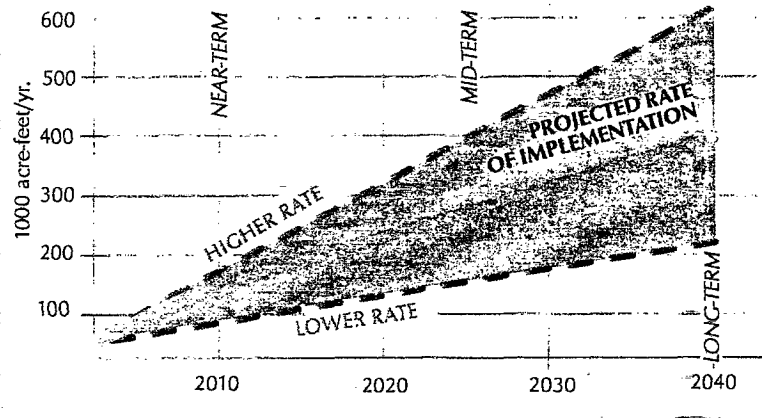
The major recommendations of the Regional Water Recycling Master Plan are the following:

- Water recycling should be pursued from a regional perspective with agencies sharing costs proportional to benefits, including water supply, wastewater discharge and environmental benefits.

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- The initial phases of all recycled water projects currently planned by local agencies are a high priority for implementation and should be incorporated into the near-term regional system by 2010.
- Near-term recycled water facilities located in identified regional service corridors should be sized for mid-term demands projected for 2025.
- The near-term regional system should include recycled water uses that improve the environment by stream flow augmentation or wetlands enhancement.
- The implementation of recycled water projects in the Bay Area should be phased to supply 125,000 acre feet per year by 2010 and about 240,000 acre feet per year by 2025.
- The current feasibility assessment work should continue upon completion of the Regional Master Plan to answer specific questions regarding institutional constraints and public acceptance for some near-term projects.
- Other near-term projects, where implementation issues have been resolved, should begin permitting, design and construction at the completion of the Master Plan.

Regional Plan Projects Range of Recycling Depending on Driving Forces and Funding



Implementation of the regional water recycling program promotes the economic of California vitality as follows:

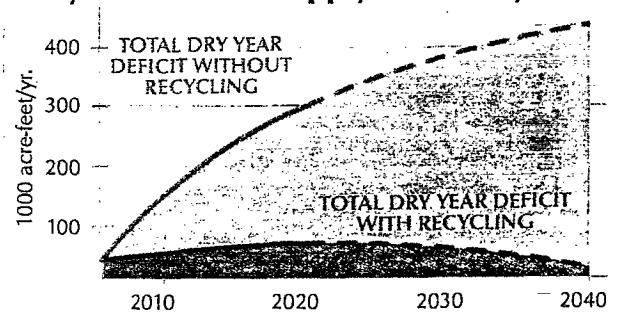
- The projected recycled water yield for the near-term and mid-term years (2010 and 2025, respectively) greatly reduces projected dry year water shortages for the Bay Area.
- The Master Plan approach—to connect uses to the recycled water system in order of cost-effectiveness—helps ensure reasonable water rates.
- The Master Plan approach to sharing benefits and costs regionally ensures that other objectives, such as Bay water quality management, are also achieved cost-effectively.

What Are the Benefits?

Bay Area regional water recycling will help CALFED achieve success in meeting its primary objectives related to water supply, water quality and ecosystem enhancement, and should receive a high priority for state and federal funding of implementation.

Water recycling provides several advantages over other water supply options being studied in the CALFED Program, and by maximizing utilization of recycled water for its permitted demands, water agencies can reduce the demands on their current high quality water supplies and limit the need for new, possibly, lower quality supplies in the future.

Recycling Will Significantly Improve Bay Area Water Supply Reliability



What Are the Costs?

The average unit cost for the near-term (2010) projects is currently estimated to be approximately \$600 per acre foot of recycled water delivered. This cost is less than many other recycling projects due to economics of scale, and due to the fact that existing facilities are utilized to the greatest extent possible. This \$600 per acre foot cost may appear to be higher than other new water supply costs, but typically, other water supply costs do not reflect the full cost of treatment and delivery to the customer. Other water supplies also may not provide the same level of benefits associated with recycled water (e.g. dry year reliability, Bay-Delta water quality enhancements, etc.).

Local Projects Are Recommended As Catalysts for Bay Area-Wide Recycling

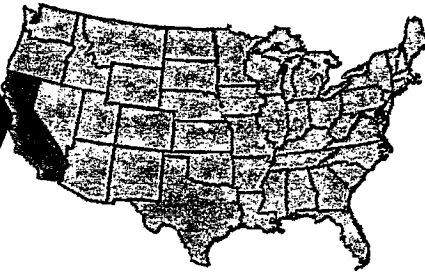
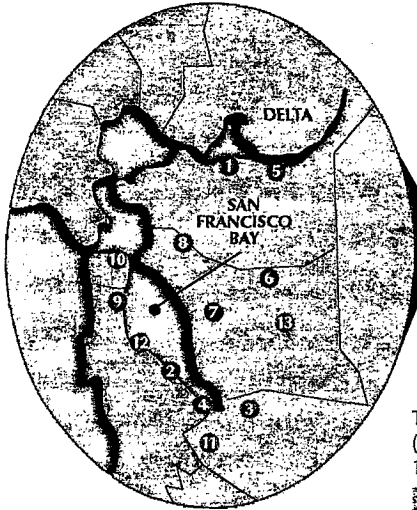


What Are the Implementation Strategies?

The implementation strategies defined in the Regional Water Recycling Master Plan include the following:

- **FUNDING.** The major driving forces for water recycling in the Bay Area—water supply reliability and Bay-Delta water quality—are overwhelming long-term issues that individual agencies cannot typically address on their own. To ensure that the near-term Bay Area water recycling program gets fully implemented by 2010, the Regional Master Plan recommends that 50 percent of the design and construction costs be funded by the federal and state governments, and that 50 percent be funded by local agencies.
- **REGIONAL PARTNERSHIP.** The BARWRP effort has succeeded in providing a forum for both water and wastewater agencies to cooperatively pursue water recycling. This partnership should be formalized with the creation of a regional organization that can implement water trading/banking strategies, discharge trading strategies and regional sharing of costs according to benefits.
- **PUBLIC ACCEPTANCE.** The Regional Water Recycling Master Plan also recommends a comprehensive public education program to convey the facts that recycled water provides a safe, drought-proof source of water, and that using recycled water improves the water supply reliability of the Bay Area and California and contributes to the long-term restoration of the Bay-Delta environment.

BARWRP's Regional Partnerships



The Bay Area Regional Water Recycling Program (BARWRP) is a regional partnership of the following 15 agencies.

FEDERAL

U.S. Bureau of Reclamation

STATE

California Department of Water Resources

LOCAL

- ① Central Contra Costa Sanitary District (CCCCSD)
- ② City of Palo Alto
- ③ Cities of San Jose, Santa Clara, and Six Other Silicon Valley Communities
- ④ City of Sunnyvale
- ⑤ Delta Diablo Sanitation District (DDSD)
- ⑥ Dublin San Ramon Services District (DSRSD)
- ⑦ East Bay Dischargers Authority (EBDA)
- ⑧ East Bay Municipal Utility District (EBMUD)
- ⑨ San Francisco International Airport
- ⑩ San Francisco Public Utilities Commission
- ⑪ Santa Clara Valley Water District
- ⑫ South Bayside System Authority (SBSA)
- ⑬ Zone 7 Water Agency



*San Francisco
Bay Area*

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